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Sir William Beaumont Bart.

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OBSERVATIONS

UPON

THE MEDICINAL PROPERTIES

OF

The Sulphur Spring,

AT

DINSDALE.

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OBSERVATIONS

UPON

THE MEDICINAL PROPERTIES

OF

The Sulphur Spring,

DISCOVERED A FEW YEARS AGO UPON LORD DURHAM'S ESTATE AT

DINSDALE,

NEAR DARLINGTON, IN THE COUNTY OF DURHAM,

BY JOHN PEACOCK, M.D.

THE SECOND EDITION,

WITH CONSIDERABLE ADDITIONS.

ALSO

A NEW AND COMPLETE ANALYSIS OF THE ABOVE WATER.

NEWCASTLE:

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1829.

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PREFATORY REMARKS.

To strangers, perhaps, an apology for this mode of giving to the public the result of my practice, connected with the Dinsdale water, may be thought necessary, as that practice is confessedly peculiar. In the first place, I always provide my own medicines; and, as I have them from a source in which adulteration has never yet been detected, they are always genuine, always alike, and I thereby have got to know how to handle my own weapons.

From the exposure which has lately been made in the Newcastle papers, the world has been informed how very precarious is the composition and medicinal effect of a prescription, were it even penned by *Esculapius* himself. It is well known that splendid fortunes have been

made by adulteration, and as every one does it his own way, as his fancy or his conscience dictates, the poor patient, during a long illness, will often have to swallow a marvellous deal of filth. Among the various good properties of our countryman, *John Bull*, he has one which at least cannot be called *good:* I mean, his reverence for those who have acquired wealth by any means. If they only contrive to keep their necks out of a halter, as soon as they retire with an ample fortune, *John* is ready to canonize them, however flagrant had been their enormities.

The practice of medicine is considered by many an uncertain art, and some have been led to believe that the faculty do as much harm as good. Nor is it to be wondered at, in the loose and uncertain manner in which it is conducted. I am well convinced, that if medicine ever is to become respectable, that is, that the patient shall be able to nourish a reasonable hope, that whenever he applies for assistance he shall receive it, it must be by attending more

closely to the respective action of medicines, and taking care to have them genuine.

Many people think it illiberal to suspect a tradesman of adulterating the article he sells, and if only their friends and acquaintance do not scruple to swallow drugs and groceries, full half of which is made up of nastiness, *they* make no bones about it. That groceries should be adulterated is sufficiently disgusting; but it may often be of the most serious importance to imitate medicines; yet it is well known that this is a constant practice, and that men travel the country with receipts (some of which they sell at high prices) for imitating and mixing expensive drugs.

In attaining knowledge of the successful treatment of diseases, genuine medicines are of the most vital importance. For how can a physician get acquainted either with the doses, or the medicinal properties of a medicine, where *three and two do not make five?* Will writing some mystical gibberish in abbreviated Latin open the floodgates of health and banish disease?

A few years ago, I had a gentleman from the East Indies under my care, who, when he left the place, took a prescription with him of a powder, which he had to have recourse to frequently. After taking the tour of England, I received a frank from him at Bath, enclosing five specimens of the powder which he had got made up from the same prescription, in different parts of England, and none of them alike, either in colour, taste, or flavour. Which way is a physician to gain experience in the use of medicine, without he knows what he is prescribing? Have our teachers arrived at such a certainty in the practice of medicine, that a modern physician has no need to add his experience to the general amount? If he is to add to the public stock, the medicines he uses must be all pure alike, otherwise every prescription is a random shot.

To those to whom the fee is the principal charm, this subject may be slurred over, or made light of, as it often is; but depend upon it, it is as necessary for a physician to know

what he is prescribing, as it is for a general to know the number and quality of his troops, before he risks an engagement.

I have to complain of another custom which physicians of fashion have got into, which is that of prescribing quack medicines; being too indolent, or too obedient to high mandates, to watch the effects of medicines sanctioned by the Colleges. Some great duchess tells him that she knows there is no medicine will do the patient so much good as the one she recommends. The dear good man of science, then tells the apothecary, that he has not much opinion of quack medicines, but a man in his walk cannot fly in the face of the nobility. This is what I have often seen. The prudent gentleman knows, that, whatever betide, the duchess will stand at his back. Oh, shame to science! A Chancellor of the Exchequer might be ashamed of licensing the sale of such abominable stuff as the ignorant are deluded with, by affixing to them the KING'S PATENT, but, if the English can only make money,

Dugald Stewart and Dr. Paley may hide their diminished heads, till state policy, *perchance*, bring them into play again.

I have practised in my profession forty years; my neighbours will bear witness how indefatigable I have been, not in accumulating money, but in collecting the phenomena connected with the history and progress of diseases, and such facts as throw light upon the power of medicine and the non-naturals in the cure of them. I have ardently sought for *remedies*, and spared neither trouble nor expense in the pursuit; and I can conscientiously say, that I never gave two medicines where one would do. During the whole of my practice, I have taken in every useful and practical work from London, Edinburgh, Paris, and Dublin; and, I trust, I have been as deliberate and guarded in adopting the many new medicines which have been promulgated of late years, as was consistent with a proper spirit of inquiry, as many of them owe their existence to the ardent imaginations of the discoverers only. There certainly has been

an augmentation of many valuable remedies to the healing art during the last twenty years, and amongst the rest, the Dinsdale water, with all its adventitious aids, does not hold the lowest station. In due time, it will be a very popular remedy. The only circumstance which is likely to keep it back, is the too frequent endeavour to make it a cure for every disease. Disappointments will thus frequently take place, and those diseases which are evidently under its control, will be jumbled with the failures.

As the following OBSERVATIONS will most likely travel beyond my sphere of action, I have thought it right, by this preface, to inform strangers under what pretensions I claim the attention of the public. I trust I have no need to appeal to those who know me; I flatter myself they will give me full credit for industry and indefatigable attention to improvement in the practice of my profession, as well as probity and honour in the mode of conducting it.—They will bear witness that, at every opportunity, I have made the laws of nature subservient

to the restoration of health, and have only appealed to medicine when it was perfectly requisite; and I hope my son, Dr. Beddoes Peacock (for whose liberal reception I have to thank my friends and the public most heartily) will, from inclination as well as policy, pursue with firmness the same path.

THE AUTHOR.

DINSDALE BATHS.

HISTORY AND SITUATION.

The Sulphur Spring which is the subject of the following analysis, is situated in the parish of Dinsdale, on the south-east side of the county of Durham.

It was discovered accidentally, in the year 1789, by some men, employed by the late Mr. Lambton, in searching for coal; according to the best information I can procure, the men had bored to the depth of 72 feet, chiefly through, what they called, red rock and whinstone, when the spring burst forth accompanied with a tremendous smoke and sulphureous stench, so that they were obliged to relinquish their operations in that place during several weeks.

The remarkable qualities of the water attracted the attention of the labourers in the

service of Mr. Lambton, who dug a hole in the ground, in the channel of the spring, for the purpose of bathing, and one of them who had been a number of years afflicted with a chronic rheumatism, by the use of the bath and drinking the water, had the use of his limbs perfectly restored.

The fame of this cure was soon spread around the neighbouring villages, and the common people flocked eagerly to the well, each hoping to leave his malady in the water, and although under no rules or regulations with regard to the dose or management there, its extraordinary effects in several chronic complaints, more especially of the rheumatic and cutaneous kind, added daily to its celebrity.

In the year 1797 a bath was built for the convenience of cold bathing, and since that time has been added a range of elegant and convenient warm baths, as well as a very capital hotel in the village of Middleton, and a most magnificent one upon the hill just above the baths. The warm baths promise to be a very valuable acquisition to the healing art.

Perhaps no medicated water in Great Britain can boast of greater advantages in situation than this; it is close by the bed of the river Tees, in a beautiful and picturesque country, where

hill and vale, wood and water, are so variously and agreeably disposed, nature would seem to have exhausted her stores to produce scenes which, to the eye of taste, border on enchantment. The sudden breaks and windings of the river in the course of several miles, both above and below the bath, so diversify the picture, that you cannot walk a hundred yards but a new landscape unfolds itself to the delighted sense.

The luxuriance of vegetation on the banks of the Tees, and the great height to which agriculture has arrived in this county and the neighbouring part of Yorkshire, must make the morning ride of those, who have a relish for rural economy, extremely interesting.

About a quarter of a mile below the bath stands the village of Middleton-one-Row, which (as the name implies) is a single row of houses, which face the south on a very high bank of the river; and about half a mile above the bath, nearly on a level with the river, we see the little village and parish church of Dinsdale.

In my first publication relative to this water, I observed that this little village had only been drawn from obscurity by the merits of the worthy rector,* I am now sorry to have it to record that this gentleman has since paid the debt of

* The Rev. William Addison.

nature. Every good quality, for which he was so eminently distinguished, his philanthropy, his genuine but unaffected piety, his noble and manly heart, spurning every thing that was base and selfish, must ever leave an impression of veneration for his virtues and regret at his loss, with all those who were blessed with his acquaintance.

In the space between these villages, the Tees takes a semicircular direction, and the high banks on the Durham side, form one vast and beautiful amphitheatre, from every part of which the unwearied eye traverses an extent of country, which for richness and grandeur, stands unrivalled. A verdant and elegantly disposed grazing farm forms the front of the landscape; behind it is the fertile and extensive vale of Cleveland, which has been emphatically called the *Garden of Yorkshire*, and in a clear day from the new Hotel, there is scarcely a village or gentleman's seat, within a range of many miles, but may be easily distinguished.

The Cleveland hills form a soft and sublime back ground to the enchanting picture. The high road between Darlington and Yarm lies about half a mile north of the bath, from each of which towns it is somewhat more than four miles distant; Croft bridge is about four miles

south-west. The soil in this neighbourhood is, for the most part, a loamy clay.

The men, who were employed to search for coal, would have had it in their power to give the best information concerning the structure and composition of those parts through which the spring issues, as they bored to the depth of 432 feet below the surface; but, unfortunately, the operations of these people are always enveloped in such an impenetrable mystery, as prevents the philosopher or naturalist from being benefitted by their discoveries.

It is somewhat more than twenty years since I endeavoured to fix the attention of the public upon the sulphureous spring at Dinsdale, as promising to make a powerful and valuable medicine. At that time we had had but little experience of its utility; but, since this, its fame has been increasing every year, and the numberless cures of real and unequivocal disease which have been effected by its use, thousands can bear witness to, so that this water may now be fairly ranked among our first-rate medicinal agents.

In my first edition I remarked, that I gave a few experiments, not with the presumption of making a perfect analysis, but only with the view of fixing the attention of men of science

upon the subject. Since then, some of the most eminent professors in experimental chemistry, both of London and Edinburgh, have been engaged in investigating its contents. The analysis I now lay before the public, was made by Dr. A. Fyfe, Professor of Chemistry, Edinburgh, a gentleman well known to the scientific world; neither time nor expense has been spared, and we now offer to the public the ingenious fruit of his labours.

THE CHEMICAL ANALYSIS.

The specific gravity of the water, tried at different times, varied very slightly; taking the average, it was at 60° Far. 1003·23.

A. Litmus paper was tinged blue.

B. Nitrate of baryta gave a white precipitate, partially soluble in nitric acid.

C. Nitrate of silver afforded a black precipitate.

D. After boiling and adding nitric acid to saturate the alkali, nitrate of silver gave a white percipitate not soluble in nitric acid.

E. Oxalate of ammonia threw down a white precipitate.

F. After removing the lime by the oxalate carbonate of ammonia and phosphate of soda, afforded a white precipitate.

G. Prussiate of potassa did not change the colour of the water.

H. The residuum left by evaporation was dissolved in a little water, and tartaric acid was added without throwing down any precipitate.

I. A pint of the fluid was evaporated to dryness, the residue

dissolved in cold solution of starch, and sulphuric acid added; it did not acquire a blue colour, consequently there is no iodine.

These experiments indicate the presence of sulphuretted hydrogen, carbonic acid, sulphuric and muriatic acid, lime and magnesia, and an alkali free, or in union with carbonic acid, and which, as tartaric acid does not shew potassa to be present ,must be soda.

K. When the fluid was boiled for some time, a film appeared on the surface, and a saline matter was deposited; on adding water to this, part of it was dissolved, and the solution gave a white precipitate with nitrate of baryta, and with oxalate of ammonia, shewing that it consisted of sulphate of lime. The insoluble substance effervesced on the addition of an acid. The solution formed contained lime, it was, therefore, carbonate.

L. On the addition of acetate of lead to the water, after being boiled, there was no black precipitate, shewing that the sulphuretted hydrogen was in a free state.

M. The residue of the evaporation of the water did not become moist, though exposed for several days to the atmosphere; it did not therefore contain any muriate of lime.

From the above experiments I infer, that the saline ingredients of the water are carbonate of lime, held in solution by an excesss of carbonic acid, carbonate of soda, sulphate of lime, sulphate of magnesia, and muriate of soda.

N. To ascertain the nature of the gaseous substances, the water was boiled, and the gas received over mercury. Acetate of lead introduced caused an absorption producing a black precipitate. On the admission of aqua potassæ, the gas was still further diminished. What remained after this, did not support combustion; and when mixed with oxygen and an electric spark passed

through it, it did not suffer any diminution. The gaseous products thereof are sulphuretted hydrogen, carbonic acid, and azote.

O. A pint of the water, English wine measure, when boiled and the gas collected over mercury, it amounted exactly to two cubic inches, which by acetate of lead was found to contain

	Cubic in.
Of sulphuretted hydrogen . . .	1
Water of potassa indicated the presence of carbonic acid	0·67
The remainder not supporting combustion, and not containing any inflammable gas, was azote	0·33
	2·00

P. A pint of the water, on evaporation, yielded 25·2 grains, which, when boiled for some time in distilled water, left a residue, weighing 4·16; this, treated with muriatic acid was dissolved, except 0·16. The watery solution of the saline residue, when evaporated to dryness, lost on the addition of muriatic acid, 1·2 of carbonic acid.

Q. From another pint of the water, after boiling and filtering, there was obtained by adding nitrate of baryta, a precipitate, which, after being washed with nitric acid, was equivalent to 9·84 of sulphuric acid. The filtered fluid, with nitrate of silver, indicated the presence of 1·16 of muriatic acid. On the addition of oxalate of ammonia, a precipitate was procured equal to 6·6 of lime. Deducting from this 2·25 for the lime contained in the carbonate, leaves 4·35. After removing the lime and filtering, carbonate of ammonia and phosphate of soda, indicate 1·64 of magnesia

The above experiments indicate the presence of

Carbonate of lime	4
Vegetable matter	0·16
Carbonic acid.	1·2
Sulphuric acid	9·84
Muriatic acid	1·16
Lime	4·35
Magnesia	1·64
	22·35
The deficiency	2·85

must consist of the soda, in union with the carbonic acid and muriatic acid. 1·2 of carbonic acid are equivalent to 1·75, and 1·16 of muriatic acid require 1·32 of soda; 4·35 of lime take 6 of sulphuric acid, leaving 3·84 to be combined with the magnesia; but 1·64 of magnesia require only 3·28 of sulphuric acid, of which there is an excess of ·56, probably owing to the precipitate of sulphate of baryta not having been entirely deprived of the carbonate with which it was mixed.

The saline contents of the water are therefore

	Grains.
Carbonate of lime	4·
Carbonic acid 1·2, in union with 1·75 of soda, making of *carbonate of soda*	2·95
Muriatic acid 1·16, in unison with 1·32 of soda, making of *muriate of soda*	2·48
Lime 4·35, combined with 6 of sulphuric acid, making of *sulphate of lime*	10·35
Magnesia 1·64, united with 3·28 of sulphuric acid, making of *sulphate of magnesia*	4·92
	24·7
Vegetable matter	·16
	24·26
Error	·34
	25·2

A pint of the water, collected at different times, yielded on evaporation 25·2 grains, the ingredients of which were the same as those above stated. On another occasion it yielded 26·9.

It is worthy of notice, that if the Dinsdale water be allowed to stand exposed for a short time, it loses the whole of its sulphuretted hydrogen, and is thus reduced to a common saline water; so that, by proper contrivance, it affords an opportunity of having a *sulphureous* or *saline* water, as required.

The company which flocks to this beautiful place, has been increasing in numbers every season, and as the accommodations have been improving too with the popularity of the place, we may hope in a few years to see it rank with the most celebrated of English watering places.

My attendance at Middleton has been regular and constant, during the last fifteen years, which has given me a good opportunity of observing and recording the medicinal qualities of this spring, and I meant long before this to have published the result; but an extensive and laborious business has hitherto prevented me, as it is well known that I have not an atom of time from one year to another, in which my professional exertions are not called for. I do not say this boastingly, but as an apology to my good friends, to whom I have repeatedly promised an account of the many

and surprising cures which this valuable water has brought about.

I am sorry I must still lay myself under their indulgence; I fear another season may arrive before I shall be able to give the public a sufficiently copious account of what the water is capable of. I will now just venture an outline, which is as much as is needful for those who have occasion for assistance, for no one labouring under any serious disease, will be so rash as to engage with the water, without first putting themselves under the guidance of some experienced practitioner; besides, in almost every important case, the auxiliary aid of medicine is required. Now I would not have the poor sufferer believe that he is to come here to be drenched with medicine at the time that he is enveloped in an atmosphere of sulphureous gas. No! every practitioner, who has the interest and reputation of his profession at heart, will apply to medicine as little as he can help; but if it is necessary he must not let the prejudices or squeamish, but foolish, whims of his patients, or their satellites, deter him from giving it; health is not a thing to be sported with, you may be within an ace of being restored at one time, when if the opportunity be neglected from any caprice or impertinent interference, it may never return.

This truth cannot be too much impressed upon the invalid, as there are always a number of wise ones, both male and female, hovering about every watering place, and poisoning the infirm with their gratuitous advice; to these a deaf ear should be turned by all who wish to do well, for a physician cannot be amenable to his patients or their friends, for the success of his advice, when he is thwarted at every turn by these busy meddlers.

At every watering place we are told, not only by the inhabitants, but by all the faculty in and near the place, that the respective water will cure every disease which the human frame is subject to. Physicians at a distance may be amused with such pretensions, but the poor invalid who comes with a tottering hope that its curative qualities may apply to his particular case, must be disgusted with them in the same way that every sensible person must be disgusted with the pretensions of quack medicine mongers. I have seen a print by Cruikshank, of a cockney sportsman, who is shooting with a patent gun which is advertised to kill in *every direction*, the shot is seen flying from the muzzle *unde quaque*, and bringing down not only game, but dogs, geese, pigs, travellers, and bystanders in every direction. This may be considered a

very fair representation of the deleterious effects of quack medicines, as well as of mineral waters, which are recommended to do *every thing*. For the loss of time, under unadvised courses of either, is a very important consideration, supposing the article swallowed to be perfectly innoxious.

The art of curing diseases has made great progress within the last fifty years. Before this time, medicine was little else than a piece of grave and mysterious mummery. Hundreds of medicines were prescribed by the learned wigs, and sanctioned by the Colleges without any knowledge of their effects upon the human body, either in sickness or in health. But I would have the invalid believe, that since that time, a number of ingenious men have exercised every faculty, and laboured night and day to improve the healing art, and discover actual remedies, not by fine-spun theories, or puffing the fashionable nostrums of the day, but by industriously collecting a series of facts, upon which they are progressively raising a superstructure which will be permanent and always increasing, as nature will be the same five hundred years after this.

MEDICINAL QUALITIES.

The most prominent feature in this water is its power as an antacid. When a patient is affected with indigestion, the generation of acid in the stomach is a very common and troublesome occurrence. This is known by acid eructations, or sometimes a sense of heat at the stomach called heartburn, which is always accompanied (less or more) with depression of spirits, from which the patient is for the most part relieved immediately upon the use of antacids, such as magnesia, or an alkaline salt, &c.; but sometimes the juices of the stomach are highly acid when secreted, and the ordinary medicines will not relieve. We must then have recourse to other means. Those who frequent Dinsdale must have known many relieved of an habitual heartburn by taking this water, perhaps with other views, and have been surprised to find their daily plague was gone. This power as an antacid, does not depend so much upon the nature of the solid ingredients diffused through the water, as upon the disoxygenating power of the sulphuretted hydrogen, which has a tendency to prevent the formation of acid wherever it is met with, and nothing in nature

is so penetrating or so easily diffused through every solid and fluid of the human body. This remarkable quality will be one guide to those who wish to know to what diseases, or state of the body, the use of this water is applicable.

As few of my readers will understand the nature and action of sulphuretted hydrogen gas upon the human frame, it may not be amiss to give them such an outline of the science as will impart to them a general notion of its powers as an antacid.

The atmosphere we breathe is composed chiefly of two different kinds of aeriform fluids, or gases, which are easily separable. The oxygen gas, or vital air, constitutes about one-fourth; the other three parts are named azotic gas.

Azotic gas is so called from its deleterious effects upon all animals that breathe it; when separated from oxygen gas, an animal immediately dies, and a candle is instantaneously extinguished in it; but as this gas has no known action upon the human body when united with oxygen gas, in the proportion of one part of the latter to three of the former, it being inspired and expired unchanged, it would be foreign to our present purpose to enquire any further into its nature or properties.

Oxygen takes its name from two Greek words

which signify *acid maker*, and it is the acidifying principle of every acid according to the chemical system of Lavoisier, Fourcroi, &c. An apple, vinegar, aquafortis, every solid and fluid which is called sour, is indebted for this quality to the oxygen it contains. A candle only can burn, or an animal breathe, whilst they are supplied with oxygen gas; as soon as this part of the atmosphere is consumed the candle goes out, and the animal dies; and the bright red colour of the arterial blood is owing to the same gas uniting with it in the lungs. If blood be drawn from a vein and exposed to the open air, the surface of it is soon seen to change from a reddish brown to a bright crimson, and this is effected by its union with the oxygen gas of the atmosphere.

Oxygen is kept fluid in the atmosphere by its solution in what chemists call *caloric* or the *matter of heat;* it is its union with this substance which constitutes it a gas or aeriform fluid. If you introduce another substance, for which oxygen has a greater affinity than for caloric, it leaves the caloric, and joins the other substance, and the caloric escapes in the form of light or heat. Blood is a substance for which oxygen has a greater attraction than for caloric. The pulmonary artery diffuses the blood through

the lungs, and when we inspire, the following changes take place :—The oxygen of the air unites with the dark blood, and immediately changes it to a brighter red, which is carried to the heart, and by this organ distributed through every part of the system, for the different purposes of nutrition, muscular irritation, and secretion. After these are effected, the blood has lost its bright colour, and is sent by the veins to the lungs, for a fresh supply of oxygen.

When the oxygen quits the caloric, to join the red particles of blood, the caloric is then set at liberty, and gives warmth to the arterial blood, which, by the circulation, is rapidly diffused over the whole body. This is with good reason supposed to be the chief source of animal heat.

The red particles of the blood are composed of phosphoric acid and iron, and as the proportions of one or the other prevail, the circulating fluid will be of a darker or brighter colour, and will impart more or less of heat to the whole system.

Some constitutions are very prone to imbibe a large quantity of oxygen from the atmosphere which oxygenates or acidifies the blood making the complexion florid, the circulation rapid, and exciting a greater degree of heat throughout the

whole frame: and these circumstances will be carried to such a height as frequently to constitute disease. This kind of constitution is very liable to inflammations, to florid consumptions, diabetes, chronic hectic fever, cutaneous eruptions, inflammatory rheumatism, and when passed the meridian of life, to gout and apoplexy.

Now, to disoxygenate the animal system, to remove the superfluous oxygen from the fluids, the accumulation of which, according to the chemical pathology, is the cause of the increased heat and morbid action, no medicine promises so much as sulphuretted hydrogen, the active ingredient in these waters.

If sulphuretted hydrogen gas be mixed with atmospheric air in a glass jar, after a while the hydrogen seizes the oxygen of the air, and forms water, the sulphur is let fall, and almost nothing but azotic gas (the irrespirable part of the air) is left in the jar. This is one proof how greedy hydrogen is of oxygen.

If you draw blood from a vein, and introduce it into a jar filled with sulphuretted hydrogen gas, instead of acquiring the vermilion hue, which it gains in common air, it is changed to a dark brown; the hydrogen uniting with the oxygen and destroying it.

The manner in which sulphuretted hydrogen

is supposed to act upon the blood, in a living animal, may be illustrated by the action of the same gas upon a solution of a metal in an acid. For example, if copper be dissolved to saturation in a weak nitric or muriatic acid, the solution will be a fine green; let a stream of sulphuretted hydrogen gas pass through it, and the copper will fall to the bottom in a black powder, and the green hue will be lost. Here the hydrogen gas seizes the oxygen of the acid, and forms water, and at the same moment the sulphur unites with the copper and is precipitated.

I have before premised that the red particles of the blood are composed of iron united to phosphoric acid. Now, when the sulphuretted water is taken from the stomach, it soon pervades every part of the system, as is very demonstrable to the senses, and it may be presumed that the usual attraction which hydrogen has for oxygen will be exercised here: indeed, experience of the action of these waters fully proves it; but whether the other constituent part of the gas (the sulphur) unites at the same time with the iron, is not so clear. I believe it does *not*, as solutions of iron, out of the body, are no further acted upon by sulphuretted hydrogen, than by seizing a part, only, of their oxygen.

If the system *be* liable to imbibe a superfluous quantity of oxygen, so as to constitute disease (as is rendered very probable from several symptoms in the diseases above enumerated, and particularly as this opinion is sanctioned by some of the best physicians and chemical physiologists in Europe), we have here a remedy ready formed in the laboratory of nature, the most promising to resist and subdue this particular diathesis of any that has yet been discovered.

Many physicians have been so much impressed with the applicability of sulphuretted hydrogen to diseases apparently dependent upon an excess of oxygen in the system, as to prepare this medicine artificially, and they have succeeded in effecting a cure in a great number of cases, which would seemingly have set every other means at defiance.

Dr. Rollo's first trial of sulphuretted hydrogen, was in a case of that terrible disease the diabetes, in an officer of artillery, in which he succeeded so well, as to encourage him to make it known to several of the most distinguished of the faculty in different parts of Great Britain, requesting them, at the same time, to make a trial of it in similar cases. The Doctor in consequence received various communications upon

the subject, in which the utility of this medicine, with an appropriate diet was placed beyond a doubt, for a great number of cases of diabetes were given in to him, in which the patients had either been cured, or so much relieved, as to evince its superiority over every medicine then in use.

The medical reader need not be informed, how much more agreeable such a medicine must be to the palate of the patient, when taken, blended as it is by nature in this water, than in the nauseous shape in which physicians have been compelled to use it, when prepared artificially in sulphuret of potass, or sulphuret of ammonia. During the last three seasons, ten cases of diabetes have been cured by this water under my care, and many have been relieved who did not seek any medical aid.

Some constitutions upon the least deviation from health are very much incommoded by the formation of acids in various ways: a bad cold will give rise to it, as well as food of difficult digestion. Besides the usual inconveniences from acids forming in the stomach, the excretions will all partake of the same quality. The perspiration is sometimes so acid as to produce eruptions upon the skin. The breath too will be evidently acid, a crust of tartar will form in a

few hours upon the teeth. A blister or a cutaneous ulcer will smart excessively from the acid thrown out by the exhalents; the urine will be loaded with acids of various descriptions, in greater quantities and of a different nature from those found in health. By what process these are formed it is not easy to conjecture, but the most renowned physiologists know nothing concerning the economy of the kidneys, even in a state of health, they only know that the urine is separated from the blood by the kidneys, that it is carried there by the renal arteries, and having passed the kidneys, it has acquired three new acids, which were not component parts of the blood before it was poured into the kidneys. But if we cannot get to know from what source this acidifying principle arises, we are not debarred from taking advantage of the antacid properties of this water, in rendering the salts less pungent, and by disoxygenating in some measure the system, render it less inflammatory, and thus mitigate many of those extreme nervous anxieties inseparable from a sense of burning heat in every part of the human frame. Those who have suffered under diabetes or the hectic, which is sometimes left behind by scarlet fever or typhus fever, will know that the above description is not overcharged.

INCIPIENT CONSUMPTION.

When I first published upon Dinsdale water, I was but little experienced in its use in diseases of the chest, but I had then seen some surprising instances of relief obtained by the tepid bath, and drinking the water in hectic, which threatened to terminate in consumption. When the pulse had acquired much morbid celerity, it was frequently brought down ten or twenty in a minute in a few days; I caught at this property with eagerness and avidity, and being at that time engaged in a plan for the management of consumption, I found this water a powerful auxiliary, and I dare say the number of cases of apparent consumption which have been cured at Middleton, are unexampled in any watering place in the known world. Indeed it has got such a reputation for curing this opprobrium of our art, that so early as the beginning of April the last spring, twenty-two most desperate cases, many of them in the last stage of the disease had found their way to this place; we were under the painful necessity of advising their friends to take most of them immediately away, as it would neither do them nor the place any good to attempt impossibilities.

In talking of curing consumption, many wise people will raise a quibble and say the disease had not been consumption, if it was cured, but it is not to this kind of people I address myself. Some scores of patients have got well who came here with great emaciation, frequent shiverings, succeeded by burning heats, difficulty of breathing, copious night sweats, much cough, a purulent expectoration, and unmanageable diarrhœa, a red tongue, dilated pupils, a tenderness in the body upon pressure, and stitches in every direction; perhaps the most unequivocal symptoms of decline, are a great silkiness of the skin, and an effluvia from the breath, resembling very closely that from a room in which apples have been sometime kept; fewer get well with the last symptom than with any of those enumerated before it.

If nature be well succoured, she has much more power to throw off phthisical affections, than people give her credit for; medical men are alarmed at the sad devastation they see depicted in engravings of the morbid lungs, by some of the French writers, as well as those of England, but they should recollect that the great waste is made in the very last stage of the complaint, after the prospect of recovery could not possibly be looked for. There is a very near resemblance

between tubercles of the lungs and diseased lymphatic glands; indeed the resemblance is so close, that many eminent anatomists believe them to be of the same origin and composition. Dr. Monro, in his work upon morbid anatomy, has the following remarks in a note:—"Some authors have supposed tubercles to be diseased lymphatic glands; though anatomists have not, hitherto, detected lymphatic glands in the healthy lungs; and for the following reasons:—1. Because disease has discovered lymphatic glands and lymphatic vessels in many parts of the human body, which has been supposed to be destitute of these. 2. Because tubercles of the lungs bear a striking resemblance to the lymphatic glands in colour and consistence, and to other diseased lymphatic glands as those of the mesentery and neck. 3. As tubercles are often observed in clusters, like diseased lymphatic glands. 4. As tubercles undergo the same morbid changes as diseased lymphatic glands, and where diseased, are filled by similar contents."

Many children, particularly in large towns, are subject to a very serious disease of the lacteal and lymphatic glands, in which first an induration takes place, and after this suppuration, and as far as we can judge, resembling the tubercles of the lungs, in those who are disposed

to consumption; in both complaints the tubercles are sometimes very numerous, and run into clusters. I have seen three cases of diseased mesentery in which an abscess has formed, which broke externally, and eventually got well; but frequently children of this description become much emaciated, have a great deal of hectic, and enlarged and tense belly, with a deep seated pain in it, and the limbs and the whole frame are very much emaciated, so as to exhibit a very affecting spectacle. It is found that this disease, which so closely resembles consumption, and often terminates that way, owes its origin to a want of due exercise in the open air, and to a poor watery and acescent diet, the powers of digestion become so weakened, by bad rules and habits, that at last the distressed parents dare not give the little sufferer any thing but the thinnest, the most acescent and filthy messes, under a plea which murders thousands, that a wholesome food would be *too heavy for the child's stomach*, or would *breed humours*; however we have the satisfaction to say, that every child whose parents would submit to a change of system, has recovered in this place, and when the child will drink the water, its powers as an antacid would contribute no little to facilitate the cure.

Now, when we have a child of this description

brought to us, although we know from dissections that it has thousands, nay hundreds of thousands, of diseased glands in almost every part of the body, nay, that every part of the contents of the abdomen is studded over with them, as close as they can lie, yet it is not common to refuse in despair to put forth a helping hand. Then when we are called to a patient with a cough, and are informed by his friends that his physicians consider his case one of tubercles in the lungs, are we calmly to consign him to his grave, with a few winks and shrugs, and wise saws, or, are we humanely to give him the chance of those means which others have recovered under? Yes, reader! there is not one person in the habit of attending at Middleton, but can attest the recovery of many, who were by common consent of the place *doomed.* It is unpleasant to our patients to have the public attention drawn upon them, by mentioning their names, or it would be easy to point out some scores who owed their safety to the use of this water, along with a very little medicine.

My practice in consumption differs a good deal from that of the generality of medical practitioners. The late Dr. John Clark, of Newcastle, whose loss the community must ever deeply deplore, was the only one I was ever

acquainted with who pursued the same means as myself, in combating this awful disease. I have to lament the want of his acumen, of his sagacity and industry, in assisting me to bring to maturity a plan, the basis of which rested upon unremitting observation and long experience. When Dr. Clark died the Dinsdale water was not known; how much we have to repine that we had not his aid in directing us to what extent, and by what means, it might have been made subservient to the healing art.

Whenever we have successfully subdued consumption, it has generally been by endeavouring, by every means in our power, to strengthen the constitution, so as to make, if I may so express myself, the constitution overtake the disease. Various medicines may occasionally be necessary to remove obstacles which stand in the way of returning strength; but I believe no means should be used to compound with the loss of tone and vigour, to gain a little abatement of symptoms, as long as there is any hope of the patient's final recovery. How often have I heard very ingenious physicians propose to gain this or that point at the declared *expense of the constitution.* Thousands have fallen a prey to the delusion, that causing the pulse to make fewer beats in a minute, by administering

digitalis, would retard the wearing out of the system. If a weak man has to walk a certain distance, he will certainly save his strength by keeping a slow pace; but if he is forced to walk slowly by hanging a heavy clog to his leg, he will assuredly feel wearier at the end of his journey, than he would have been had he taken a brisk step without it; this is the case with digitalis. The number of beats in a minute may be reduced from 150 to 50 under its influence; the interval betwixt the beats will be longer, but when the beat comes it is very laboured, and gives you the idea that the artery is contending with a difficulty; and watch the result, instead of saving the patient's strength, he sinks more and more every day, he loses his appetite, and his skin acquires a leaden bloodless hue, and he soon appears, as he really is, to be dying under poison. I might here descant upon other means in fashionable practice which are equally destructive; such as repeated bleedings, till the muscles are literally *veal*, or starving on a watery diet, being pent up in a warm room regulated by a thermometer, with cold ablutions, which give as much pain to the shivering irritable skin as scalding lead would do. These, and many other sagacious whims, the distressed parent is induced to make trial of, such as the

prussic acid, goat's whey, the fume of boiling tar, &c. under the pressing recommendations and false attestations of meddling people, who are all anxious to be promoters of a miracle, or rather, I should say, actors in a palpable cheat.

We have many pamphlets in circulatiou upon consumption, in which the respective authors shew great ingenuity in dividing and subdividing the subject, and splitting hairs. An appropriate diet and medicine is fixed upon for the *catarrhal* consumption, another for the *apostematous*, and a third for the *tubercular*, with as much apparent precision as would be used in giving us the latitude and longitude of St. Petersburgh; and the faculty are taxed with the expense of these grave nothings, which generally are found to consist of the pedantic dreams of some retailer of cautions, who guards the timid parent against this and that, but gives no proof that ever he saw the disease, or ever attended to the only medicine, the means of assisting nature. I have been engaged in a very extensive practice during the last forty years, and have had an opportunity of seeing some very ingenious schemes put to the test, such as the inhalation of medicated æthers, the constantly breathing diluted ammonia, as well as others less plausible, with various results, for there is no doubt

that they were sometimes successful; but during the last twenty years, my sole dependence has been in supporting the constitution as much as in me laid, so as to assist digestion and promote the absorption of diseased parts; and we have as much reason to suppose that this sanitary operation is carried on in the lungs as in the mesentry, or other cavities, where the lymphatics are distributed.

Another species of consumption we are indebted to Dr. Wilson Philip for pointing out, and tracing up from its origin (faulty digestion), this Dr. P. has distinguished by the title of dyspeptic phthisis, and has described its progress with an ingenuity and attention which is very creditable to him; but alas! the plan of cure is of equal value with what has been prescribed for the other species of phthisis—by decoction of dandelion; "and after this," he says, it is of great use in all cases to allay the feverish heat by nitrate of potash and saline draughts." As to dandelion, it is the *eo meo reo* for derangements of the gall ducts and the liver, just as cowslip tea, cochineal, and saffron, are given by old women for striking out the measles.—About fifty years ago dandelion was in very great request, and having run its day, it was thought nearly as much of as *bread pills.* For want of

a new medicine in this line, it is brought up again; nothing can be more harmless, but it is not harmless to lose time; and this, as well as every other species of consumption, can only be combated one way, and that is by supporting the strength and bringing nature to your aid; but this is not to be attempted by savoury food, bark, and quinine. The food as well as medicine must be adapted to the state of the patient's stomach, and any peculiarities, or idiosyncrasies, as we call them, should be attended to, taking care to animalise the food as much as is consistent with perfect digestion, on account of the strong tendency to acescency which pervades the whole system. The Dinsdale water here comes into play, and should be taken as freely as the state of the bowels will admit of.

Dr. Sydenham's famous prescription of *Recipe Caballum* should never be left out, when it can be conveniently obtained, and gentle gestation should be continued five or six hours a day, or longer, if the strength will allow, taking care always to eat when the appetite dictates, whether at home or abroad. In any disease where accescency prevails, we should never wait for a meal where food is to be had, nor ever oppress the stomach by taking too much.

Another, and a most important help in

keeping up the strength, has been pointed out to us by Mr. Mansford, of Frome, very lately. He found, by keeping statistical tables, under the superintendence of various medical men, both in mountainous countries and in those which are nearly upon a level with the sea, that the proneness to consumption depended much upon the mechanical properties of the air, and that the average of those who died of this complaint was much greater in the high countries than in the levels, owing to the atmospheric pressure being so much greater in the latter. Every school-boy knows what a great weight every inch of our bodies has at all times to sustain, which as it were *keeps us together;* for we hear from those travellers who have ascended very high mountains, that, as they approached the summit, and the pressure was diminished, their heads began to expand, and blood to gush out from their eyes, nose, lungs, mouth, and ears; the rise of a few hundred yards makes a great difference in the barometer, and will affect very materially the tone of the mucous membrane which lines the windpipe, and the air vessels which branch from it into the lungs; accordingly we find the greatest number of consumptive patients come to this place from the mountains of Westmoreland and Cumberland;

the young people are there particularly liable to spittings of blood, which often lay the foundation of apostematous phthysis.

There is one circumstance worthy of observation; among so many consumptive patients as have resorted to this place, it must be expected that many of them suffered occasionally under hæmoptisis, but there was not one instance, in the whole number among those who did well, and those who did not, of any return of this symptom whilst they were taking the water with appropriate medicines and diet; this is the more remarkable, as many, from the flattering nature of the complaint, come much too late.

INDIGESTION.

Under this head may be classed a long list of diseases, which have taken different names, according to the prevailing fashions and opinions of the day. Those disorders of the digestive organs, which, twenty years ago, were called *bilious*, are now graced with the Greek term of *dyspepsia*, which every fair frequenter of a bathing place can let trippingly off her tongue, to the astonishment of her brother at vacation time. Every new popular treatise upon medicine (and the press teems with them) is replete with this jargon or slang of the day, which scientific ladies

and bewildered invalids greedily swallow, and which they retail out with the same good effect that the rustic squires and parsons, a few years ago, disseminated their systems of agriculture for the pretended use of the farmers, till at length these benevolent philosophers found out that they had little land left to till. There is this difference, to be sure, between the two quackeries, that one was only fatal to the pocket, but the other is to human life; but the real motive for gentlemen engaging in agriculture originated in greediness; the great prices made them begin, and, instead of the high-minded English gentleman, we soon had a set of cold-hearted calculators, who scrupled not to cheat their blacksmith by importing their own iron, and rob the trade by being their own harness and collar makers. About this time, their ladies, who did not wish to be behindhand in economy, began to plot against the village apothecary, and, after making herself acquainted with the dirty prescriptions of the most learned defender of the pregnancy of Johanna Southcote, sallied forth, fully confident of her ability, to grapple with every malady which flesh is heir to. It is remarkable that, when acts of parliament are passing every year to make the study of medicine more rigid and laborious, and when

practitioners are made subject to the severest examinations regarding their education and fitness for the profession, it is indeed remarkable that at this juncture, a great part of the medical practice of this country goes through the hands of a few presumptuous women, or what are no better, some *fiddle cum faddle* men, who are upon mighty good terms with themselves, and whose friends look on upon the mummery with gravity, and even with reverence, having a ready excuse, that the means used are innocent, and "do no harm if they do no good;" but I should presume that the greatest injury a patient can sustain would be loss of time, upon the first attack of a serious complaint. A physician, perhaps, is called in, by way of a cover, when it is too late, but this will make but a poor salve to the consciences of those who trifle with the lives of their fellow creatures, under a perfect conviction that they are totally ignorant of what they pretend to; perhaps this foolery may go on till the members of some great family get thinned off by it, we shall then have this most absurd practice decried in every newspaper, sermon, and novel, that comes out.

The reader will see the cause of this digression, which naturally forced itself upon me, when I got upon the subject of indigestion, as

this is the grand *arena* upon which the professors of quackery think they cut a figure. I appeal to any person of candour, if there are not in every village, throughout the northern part of this island, one or two of these *scientifics*, who, unasked, regulate the diet of all their neighbours, and prescribe quack medicines, and other *little innocent things*, to the great annoyance of the regular practitioner, who, if he is so unfortunate as not to approve of this impertinence, must make room for a more complaisant gentleman, whose rule of action is generally regulated by the rank or whims of his employer. My remarks upon these people, to some ears, may sound a little harsh; but it must be admitted that, if the laws and rules for regulating medical practice and preventing his majesty's liege subjects from being poisoned by ignorant pretenders are founded in reason, these self-constituted wise ones must do much mischief. I do not wish to cavil with the ladies, for if a lady said a dollar was a coach wheel, I should not contradict her, and if she was pretty, or had rank and wealth, no one had a right to contradict her; but if the same lady gave her dawdling syrups to a child beginning with the croup, or if she plied, with her filthy *carminatives*, one with incipient inflammation in the stomach, or

bowels, or kidneys, or bladder, till the disease became confirmed, somebody must speak out.

But to the subject. We knew little concerning the derangements of the digestive organs thirty years ago. Dr. Currie, of Guy's, and Mr. Abernethy, about the same time, drew the attention of the faculty to a more clear and practical view of the diseases of these parts. The latter gentleman has traced, with an eagle's eye, all the phœnomena connected with the catenation of local diseases, with a derangement of the digestive organs, and has immortalised himself; he has formed a new era—a complete revolution in the English practice, and although the approbation of men of eminence has been dealt out to him with a most grudging hand, I am of opinion that his discovery has done more good to medical science, than all that has been written in England since Sydenham's time.

It will not be expected that I shall go further into the treatment of these diseases, than as the Dinsdale water is concerned; but, during the last twenty years, patients, suffering under diseases of the digestive organs, particularly those of the hepatic sort, have been frequently met with here, many of whom came from the northern seaports, where sacrifices to the jolly god,

I am sorry to say, are but too frequent, and had it not been my design to confine this treatise to a few pages, I might have swelled out a large volume in recounting the astonishing cases of tumid and otherwise diseased livers, which have been cured here, absolutely *cured*, and the patient sent home well.

It was the opinion of the late Dr. Bateman, and is that of the present Dr. Armstrong, of London, that this water has as powerful an effect in opening obstructions of the diseased viscera as mercury, without the deleterious effect of the latter most powerful medicine; and, from what I have seen, and the company generally who resort to this salubrious spring will bear witness to, it has done much more than ever could be expected from mercury, in removing these enlargements and indurations. The striking antacid power of this water may do as much service by rendering the fluids bland and mild before they enter the arterial circulation, and thus taking away the customary acrid stimulus from the diseased organ, as it can effect as a deobstruent, great as its power is in pervading, in an instant, every solid and fluid of the human body.

The tepid bath is singularly efficacious in this malady; it should be used a little below

blood heat, according to the age and strength of the patient, about 94° or 96° of Fahrenheit; and, in obstructions of the liver, spleen, and pancreas, I find that, whilst the patient is in the bath, moving his flat hand perpendicularly up and down in the water, four or five inches from the surface of the body, has a very salutary effect. This process gives a sort of soft and gentle kneading to the part affected, and tends greatly to restore the circulation and open obstructions. The action should be continued as long as the patient is in the bath.

The most frequent occasion for application to the faculty arises from stomach complaints; yet, although these tormenting diseases have given full employ to the professions, both learned and unlearned, to the gentleman charlatan, who disposes of his nostrum to princes and dukes, at a guinea a drop, as well as the Lady Bountifuls without number, who have infallible remedies for all the changes and windings of the disease, and although these and all the inferior class of medicine venders, who have made many a fortune out of the credulity of John Bull, and have carried on their various avocations, time out of mind, yet it has lately been proved, by the industry of the French anatomists, and confirmed by Dr. Abercrombie, of Edinburgh, that the

English have been totally ignorant of the nature of these several maladies. Till lately, we were under an impression, which was invariably confirmed from the chairs of the various professors in London and Edinburgh, that when our patients complained of pain, heat, heartburn, flatus, and tenderness in the region of their stomach, it was to be ascribed to a want of tone of that organ, or to a dryness and rigidity of the fibres, and we went to work with our tonics and cordials of every description, and if our patient had the luck to get better, the last prescription had the credit of the cure. But the French Physicians went a different way to work, and, by their labour and ingenuity, have established, throughout Europe, a new and satisfactory pathology of these diseases. Expert practical anatomists, who had the most extensive practice, both hospital and private, kept a regular journal of every symptom throughout the whole progress of the complaint. When it terminated fatally, the appearances on dissection were registered with the symptoms during life, and, by these means, this learned body got a most accurate knowledge of these diseases. Oh! that that good and worthy man, who, during many years, in the extent and emoluments of his practice, left all his rivals in London and elsewhere far behind, that this

most benevolent physician had but seen the necessity of connecting the symptoms during life, with the *post mortem* appearances, instead of trumpeting forth a little morbid anatomy wherever he could find it, and making the poor sufferers understand that he could look into their *insides**—although a most excellent man, he was a very unsuccessful practitioner.

Among the many skilful anatomists in France who have employed every faculty, almost night and day, during many years, in investigating the nature and cause of diseases of the stomach and bowels, Dr. Broussais is certainly the most eminent—he had a genius fitted for these inquiries, and an industry which was never caught napping; step by step, he unravelled all the mighty arcana connected with diseases of the stomach and intestinal canal, and founded a rational practice upon his discoveries, which, as it has nature for its basis, may outlive any other.

In those, who had suffered under tedious, or what is called chronic, affections of the stomach, he found the seat of the complaint to reside in the mucous membrane of that organ, showing often great discoloration of that membrane, with various hues of light red, deep red, with

* A very common expression with the friends of Dr. Baillie.

sometimes patches of blue, and even black, as if there had been incipient gangrene. In the part affected, the mucous membrane was generally much thickened, and often ulcers were found, in various states of progress, as well as size, and sometimes all the coats of the stomach were found thickened, and the aperture of the stomach contracted. The mucous membrane was sometimes found eroded, as if knawn into little holes; sometimes the stomach contained a morbid secretion, of various colours, consistencies, and odours; and all these appearances Dr. Broussais demonstrated, very satisfactorily, had their origin (at least in temperate regions) in subacute inflammation, brought on by the acrid stimulus of improper diet, as well as the rapid transitions of atmospheric temperature. He proved this, in the face of all the world, by his successful treatment of patients of this description, by great abstinence, and the use of mild diluents, aided by a very little medicine. In describing these chronic affections of the stomach, Dr. B. enumerates a long train of symptoms which have their origin in subacute inflammation of the mucous membrane which lines this important organ, and proceed with different degrees of intensity, according to the susceptibility of the frame, and adherence to

bad habits in the patient, as regards food or strong drink. Every physician of any practice sees these cases every day; full nine out of ten of those who apply to us are of this description. The patient complains of pain in the stomach, which extends somewhat above it to the chest, with a frequent sense of distension of the stomach, and much tenderness upon pressure. The pain is generally increased about an hour after eating, especially if stimulating food or drink has been taken. Flatus, with either heart-burn or acid eructations, are generally met with. In the female there is occasionally a disposition to faint; in the male there will be, now and then, a puzzle whether he is to faint or fall down, but commonly neither takes place. There will often be a great sense of heat in the stomach, particularly after transgressions in diet, and sometimes a dry short cough, such as is usually called a "stomach cough;" a sense of constriction, too, is a frequent accompaniment, as if something was tied round the stomach, and this sensation is frequently felt in various parts of the gullet, and gives the idea of something resisting the power of deglutition. There is little or no appetite, and the little that is taken does not digest, and often gives rise to a troublesome sickness, accompanied with pains in the head.

The bowels are often slow, but in both extremes, and the stools of an unhealthy colour, and the latter symptom is frequently attended with much depression of spirits. In bad cases, we often see a very dry skin, approaching to the colour of old mahogany, which seems closely glued to the bones, and the cellular and adipose membrane seemingly wholly obliterated. It is well known here that I have had two cases of this kind—a gentleman and a young lady—who both got well, although they were at one time nearly as fleshless as an Egyptian mummy. In milder cases, the skin will be white and rough, and the flesh always wasted. In every species of subacute inflammation of the stomach, the pulse is generally contracted and weak, but will run many changes with regard to celerity. When perspiration takes place at all, it is often confined to the upper parts of the body, which, as well as the breath, has a very peculiar odour. There are an infinite variety of symptoms, besides those enumerated above, in those who suffer under these chronic affections of the stomach, which are characterised by subacute inflammation of the mucous membrane; but as this is the leading feature of the complaint, the means usually employed to subdue it have all a sedative aperient and antacid tendency; and although it is found

that a little medicine will assist in the general indication, this water contains almost every thing which Dr. Broussais himself could wish for. It is antacid, gently aperient, and the mildest and pleasantest diluent which can possibly be taken into the stomach; and I anticipate, with great confidence, that the invalids of France and Germany will find their way here, as soon as the qualities of this delightful spring are spread abroad.

GOUT AND GRAVEL.

It is wonderful that in so painful a disease, and one of so very frequent occurrence, the nature and cure of it should have occupied so very little of the attention of the faculty. Whether their bad success, in the little that has been attempted, has discouraged physicians in pursuing the subject with greater ardour, I cannot say; but, although we are under great obligations to many enlightened chemists for their laborious investigations into the chemical nature of calculus, we see none of them set about a course of practical experiments concerning the continued use of appropriate medicines or diet. Now and then we have a plausible speculation broached, and the world are left to pursue it or pass it by, as they may please.

A very few hundreds out of the public purse might enable such men as Bostock, Thompson, or Prout, to leave to posterity a monument far more honourable and useful than those which record the feats of Trafalgar or Waterloo.

The subjects of the gravel are often men of full habits, indolent, so far as muscular exercise goes, attached to the pleasures of the table, fond of bed; and this complaint begins to show itself as they approach their fiftieth year; and as they are now getting wedded to the good things of this life, they are less willing to be advised concerning their food and drink; particularly as most men now-a-days have, in their social circle, some bon vivant, who is frequently launching out in praise of this or that mode of cookery—and if our patient has the resolution and forbearance of a stoic, they will set his teeth a watering now and then.

Much animal food, as well as strong drink, has a great tendency to produce gravel, and if a patient wishes seriously to set about obviating the approach of the greatest torment of old age, as soon as he is apprised of it, he should dispense as much as possible with both these articles from his table. It is of no use trying to joke it off; it will come, and as certain as fate.

The gravel, which is separated from human

urine in the form of red sand, as well as those little calculi which take all sizes and shapes, from a mustard seed to a good large cherry-stone, or sometimes larger, are all composed of the uric acid, with very few exceptions. Clear healthy urine is, as soon as it passes the kidneys, loaded with uric acid, which is perfectly harmless as long as the urine passes off clear; but as this fluid contains a great number of earths and salts, acids as well as alkalies, a disproportion of one will sometimes decompose the rest, and as the uric acid is soon precipitated by any other acid, it falls to the bottom of the vessel in red sandy grains. When this is seen, the patient should profit by the signal, and get rid of his bad habits as quickly as possible, or it will soon appear in another more terrible shape; age advances, the powers of digestion become weaker at this time, a man eats with his eye, he has been accustomed to twist so much down, he must not fall off! His worn out organs have a difficulty in transmitting to the circulation heterogeneous masses of half prepared chyle, and the urine is secreted in a crude, and, if I may venture so to term it, an *unfinished state.* Is it any wonder that the gout, like an alligator lying in wait for his prey, will soon have our good fellow in his gripe, or that the kidneys, instead

of transmitting the urine in a fluid form, should have to drop part of the uric acid in the kidneys, and which has now to pass through a narrow canal (the ureters) with prodigious pain into the bladder, as the only chance of being got rid of?

The lythontriptic power of this water would have been detected by the chemical philosopher as soon as its composition was known, had it not been anticipated by the accidental discovery of promiscuous visitants to the bath, who all find their gravelly symptoms disappear as soon as they arrive. Indeed, so suddenly is the relief generally obtained, that many have been induced, at a distance of forty or fifty miles, in a fit of the gravel, to set off at midnight to seek this salubrious fount.

The urine is the most compound fluid in the human body; none of the rest are laden with such a variety of salts, so that if the urine is not sufficiently diluted, some of them will separate from the rest. During a paucity of fluid, the uric acid is generally the first precipitated. This piece of information will teach our gravelly patients at all times to have their urine diluted by some antacid drink, and certainly nothing can be so well adapted to this purpose as the Dinsdale water; for, besides its antacid properties,

which correct the acids already prepared, its sulphuretted hydrogen is most powerful in preventing the formation of acids in any part of the human body. The quantity of this mineral water which may be sufficient for a dyspeptic patient is too little for a gravelly one; he should not take less than four or five of the usual tumblers every day, and should divide the twenty-four hours as equably as he can. A very prominent feature of this water is, its rapidity of circulation, and its powerful action as a diurectic; you never feel laden with a great weight of insipid fluid, as you do in some of the fashionable bathing places, which boast of their tasteless purity. No! the motto here is "keep moving."

A large proportion of the visitants to this well are gouty subjects, and no description of sufferers are so soon or so effectually relieved by it. We see many an old gentleman, who, on his first arrival, can hardly persuade one of his shapeless props to pass the other, before he has been many weeks here, walks with a firm and elastic step; the water is every way fitted for him. What can be better adapted to his dyspeptic troubles than a fluid of these rare qualities? From the customary pampering of his stomach, he is sometimes obliged to take it

warm, which is easily done by adding a little hot water to the cold. Where will he meet with a beverage which will be so efficacious in washing the calculi out of the kidneys, or in diluting and correcting his heavy, high-charged urine, laden with mischief of every description? Yes; but the credulous John Bull, who has an insatiable thirst after miracles, will not be content with an axiom as evident as two and two make four; he must look out for advertisements and pamphlets, which artful and interested knaves are always throwing in his way, and which he does not comprehend one word of. After representing the disease as one whose arcana had never been developed till the lucky author, in a lucky moment, had been blessed with the power of unravelling the mystery to suffering humanity, he then hashes up fifty pages of quaint truisms, with one hundred of sophistry, interlarding with grave cautions, that it is only he who is destined to look through a millstone, and after making a thousand refinements and distinctions, where common sense cannot find a difference, he deluges John Bull with a shower of incomprehensible mummery, who stares with astonishment as he lays down the book, and recommends it to all his friends as a sensible and useful pamphlet; and if the

reading of it only becomes fashionable, this is all the author wants; he never tells you that this Proteus of a disease owes its origin to laziness and indulgence, and, as some very renowned men have thought, to an admixture of a little scrap of pride! The ancients, who mixed up their gods with every thing good and bad, were wont to say, that *Bacchus* was the father of gout; *Venus*, her mother; and that *Anger* was the midwife who brought her forth; but, in our modern treatises upon gout, it is represented as a matter in which the *Fates* only are concerned; and if you had led an active and abstemious life, it would have made no difference; you are only to be taught how and when to take your calomel and your colchicum; and when you have struggled through the fit, why then you have an amnesty till the next, and in the mean time you may be as indulgent, as sottish, and as sensual as you please. Thus preach the superintendents of your health; nay, many hail an attack of the gout as the greatest blessing. Men who have worn out their digestive powers by frequent debaucheries are glad to have their melancholy broke in upon by an inflamed joint, as it gives them something to do; as it opens out a new field of suffering for them, and as the inflammation, after a little coaxing,

gives way, and carries with it, for a time, many of his nervous torments. He is now a new man, and ready to engage in a rump and dozen with any toper of his acquaintance. Perhaps, if he could foresee what he is destined to suffer when he is turned of sixty, it would make no impression upon him or his jolly companions; he would push on till his life is terminated in the greatest misery, both of mind and body, that a poor mortal can be tormented with. I am no sermoniser, but I have often wished that fathers of families, instead of familiarising their children to wine, by giving them their *single* glass after dinner, would caution them against those customs which, in latter life, so often terminate in misery.

I was talking with a gentleman a little while ago, just after his first fit of the gout, and recommending a change of diet, when he told me it was *expected* that a man of his grade should take his bottle of wine every day—HE MUST NOT RENOUNCE HIS WINE! This was delivered with as much solemnity and deep-mouthed gravity, and with quite as much sincerity as the late Lord Thurlow invoked his clap-trap imprecation from heaven, when he talked about "forsaking his king."

As the gout is found almost exclusively

among people of wealth and rank, there is found to be something fascinating in the very name of it, and in the beverage which has so large a share in producing it; and if a man does not take his wine, his rank and bringing up might be suspected. How many *aspiring* gentlemen have I met with, who wished to be thought labouring under the gout, and have been offended at my incredulity, not happening to be composed of such plastic materials as to fit exactly the follies of the present day.

The gout was as well known to the ancients as it is to the people of this day. Their satirists rang peal upon peal on the luxury and sloth which produced it; and many of my readers will scarcely believe that Hippocrates recommended colchicum to be taken during the fit. Had Hippocrates, in this disease, pursued nature with the same industry and perseverance as distinguished him in many others, I have not the least doubt but the gouty subjects of the present day might have been cured, if they pleased; but the old father of physic renounced nature for a splendid theory. He described accurately how it was generated, but instead of strangling the monster in the birth, he bewildered himself with a theory about the concoction of the humours, and letting it arrive at its

acmé, before the sacred dragon was to be touched. These opinions, without any material change, have been adopted and acted upon by the schools since his time (two thousand years), without any intermission. Even Sydenham and Boerhaave could not reject a system which came ready cut and dry from such great authority, but disseminated it in nearly the very words of Hippocrates. But Sydenham should have known better, for he tells us in his treatise upon the gout, that many had lost every symptom of this malady, when they adhered strictly to a milk diet. But why did they not persevere in this diet that was so beneficial? Because, he says, as soon as they left it off, the gout returned. But had they got as much relief by any poisonous herb, or any crinkam crankam, applied externally, it would have made a new æra in the management of this complaint, and every physician would be exercising all his faculties to cause the new scheme to be more permanently efficacious. Could not a diet be hit upon, if pains were taken, that a gouty patient could take with impunity, that would not have that cold empty feel which milk and bread leaves with a bon vivant? Could we not continue to give the system that sense of tension, the *sine quanon* of comfort with every gourmand,

by food no way incompatible with a plan of health? Some little medicine might go along with this plan, so far as to keep the bowels in good order, and to keep up a gentle diaphoresis, which might be assisted much by the warm sulphur bath and a few tumblers of the water. Nothing can be more essential to a gouty subject than keeping the skin in good humour, as a redness and dryness of the integuments of the feet is one of the first symptoms of an approaching fit. If our patient has experienced but a few attacks, chafing the legs and feet well with a few folds of fine linen or calico, night and morning, is distinguishedly useful. I have been told by old stagers, that had they begun this practice sooner, they were certain they would have prevented the disease altogether from returning. Muscular exercise, which is found so useful both in young and old gouty subjects, is best borne after a good chafing of the legs and feet, which should, after this, be well covered with lambs' wool, or fleecy hosiery, taking care that all covering of the feet should be of as light a texture as possible, as, when the covering is firm, although warm, it heats; but when light, it gives a disposition to perspiration, which is always useful.

As the martyrs to this disease have often been

remarked to possess a good deal of mind, no wonder they fly to books as almost the only enjoyment they are capable of; and if they have not been accustomed to a sedentary life this soon gives them a relish for it, and a dislike to those muscular exertions which every gouty person finds immediate benefit from. When a gouty man acquires a taste for reading, he is as greedy of his book as he has been of his bottle. Exercise, some how or other, improves the temper of a gouty man. I have remarked, that after his customary walk or ride, he comes back far less *cangy* than he set out—perhaps his family may profit by this piece of knowledge.

But how will the voluptuary give up his wine and his good things? Can he relinquish the gratification of his appetite for health and ease? Whilst he is young, perhaps, he may be in the mind to do it; but when his habits are confirmed, and especially if he has the reputation of being a connoisseur in the arcana of the table, we do not look for it. Might not the clergy be called in to our aid? If the subject be not religious, it is, to say the least of it, a question in *ethics*. The clergy of the established church were very kind and very successful in recommending from the pulpit the innoculation of the small-pox, and since that, of the cow-pox. The

sin of indulgence, and the happy consequences of abstinence, might be enforced with great effect in a place where the hearers are disposed to attend to the admonitions of their spiritual pastor; but I remember being at the opening of an assize, in a neighbouring county, when the proclamation against vice and immorality was read by a man with a nose like a bunch of grapes—as the artists have it, *there is a keeping in all things.*

I have thrown together these hints upon the cure of the gout, for the benefit of those who are willing to give up their bad habits, and set about in good earnest seeking relief. There is nothing in this plan to prevent them from having recourse to the usual means to obtain relief during a paroxysm. Experience is quite in its favour, and has proved every part of it entirely harmless. Here is no pretension to any nostrum, but every one knows what he is about. In the bitter powder which went by the name of the *Duke of Portland's*, although it prevented a return of the paroxysm by locking it up as it were in the system, yet men of strong inflammatory habits, if they had not the gout, were visited by some disease equally fatal. Feebler men had better luck, they generally recovered their health by it, but it was one of those heroic medicines

which is not to be trusted in every hand. Since this medicine was laid aside, scarcely any attempt has been made to act upon the disease systematically, but all the old quackeries, which have been in use almost from the beginning of the world, have been brought again into use by some artful or insinuating villain, and the higher his rank in life the better chance he has among the *Corinthians*, who must have what is fashionable if it be poison. What a great number of impositions of this kind have the nobility and gentry patiently paid for in my time! and they are always ready for another, if it has only something of novelty to recommend it. All the acrid and narcotic poisons have had their run in one form or other, and now the faculty are starting up to tell you that it was not the fault of the colchicum, or the veratrum, or the hyoscyamus, that you are not cured before, but it was because the pharmaceutists of those days did not know how to prepare it, or when prepared, did not know how to administer it. He pretends it is a gift which kind Heaven bestows only upon one in a century, and that he is the favoured person; you may eat and drink and do as you please, if you only have his *sovereign* remedy—a good name enough for it. All these mummeries are, in their turn, seen through; but then, the

patient pays, in his constitution, too high a price in the loss of it. But these modest gentlemen do not pretend to cure the gout, they only give it the charm of their sacred touch, without which you might be carried off in the fit.

Yet, why do not the regulars of the faculty attempt to cure it now, as they did a century back? there was nothing discouraging in the progress they then made. Was not the ague, during some hundreds of years, the *opprobrium medici?* Was not the small-pox considered upon a footing with the plague? When I was a boy, a physician would have been laughed at that attempted the cure of leprosy. It was not till lately, that *tic doloreux* or the *sciatica* came under the controul of medicine; yet, in cases of not too long standing, they are both considered curable. The croup, which was considered a most baneful disease, if attacked in time, is generally cured; and so is the *diabetes*, in almost every stage of it, and many other diseases which we formerly stood aghast at. Then what is there in gout that it should be exempt from remedy, the cause of no disease is better understood. Is it the belief that the subject of it would dislike to unravel his constitution, to go back to first principles, to walk in the paths which nature intended for him, and which she

points out to him in every direction? Have we come to this, that to be healthy is unfashionable? Or is there a sort of aristocracy in the disease which dislikes to bend to vulgar rules? Let a young fox-hunter, in whose family the gout is hereditary, look back to any of his ancestors in his wheeled chair, with his jointless legs and feet, which resemble any thing but human flesh, his feet studded with chalk stones, his hands incapable of motion, and his fingers hanging jointless like two bunches of parsnips. This was the remark made by a great sufferer and a great man. Every now and then the gravel passing the kidneys and ureters, makes him bellow out like one upon the rack. As age advances, the gouty matter wears out the stomach, and our poor sufferer refuses all sustenance, except now and then a spoonful of milk-whey or oatmeal gruel. Sickness is constant, and the anxiety of mind such, that for months his dissolution is the subject of his earnest prayer. Now, young gentleman, if you can bring yourself to extreme temperance in eating and drinking, you will not have your ancestors to blame for entailing upon you the gout. Whether hereditary or adventitious, the exciting cause originates with yourself, although many of your jolly friends will tell you that you are born to it, and therefore must have

it. But this is an egregious mistake. If you think good to put yourself upon a diet of extreme temperance, in which toast and milk make a very prominent part, and let your body as well as mind be constantly, usefully, and pleasantly exercised, it is a thousand to one but you arrive at a good old age without a twinge. There is nothing to prevent you from partaking of the noble amusement of hunting, it is only the follies which are usually appended to it that you need avoid. Do you not think you will ride as boldly and as well with your coffee and rolls, or your basin of milk, as if you had to get rid of your last night's debauch by soda water, or your glass of gout cordial (*vulgo* a dram)? Aim at something, do not be satisfied at being esteemed a mere scarlet cypher all your life. Would the celebrated John Locke, or the late Lord Nelson, or our very distinguished Brougham be displeased at being called *milk sops?* No! they would smile at the compliment. What a triumph it would be, if you, when you approach seventy, could take a retrospect of your past life, and, without a crabbed furrow in your face, recommend to your young friends the only way of escaping the jaws of the monster! The author of this has had as extensive a practice, during the last thirty years, as any man in England, and

he has every reason to believe that when the patient and his physician keep their eyes steadfastly upon the nature of the disease, and act accordingly, this is the best mode of escaping its various and horrid torments. Every other plan is futile, as the gouty habit is generally held sacred, and the only attempt, with all the fashionable nostrums, is just to alleviate the severity of the paroxysms, which is a sheer blunder in itself, as all these gout-destroying pretenders allow, that the more you suffer under a fit, the longer and more complete will be the interval before the next; then, if you do not attempt to check the constitutional malady, it is doing mischief to lessen the severity of the attack. But quackery abounds with absurdities, and the only question asked by gentlemen of the present day is, "What is the fashion?"

SCIATICA.

It may be proper to mention this painful complaint in this place, as a number of those afflicted with it find their way to this and other watering places every summer; but, I believe, that neither the sea nor any other mineral water will cure it; yet the tepid bath, and drinking the water, certainly contribute very much to facilitate the recovery of the patient, as I find

the same means, without the water, are not so efficacious as with it.

As this is a very common complaint in the north of England, we have many opportunities of observing what are the most successful modes of dealing with it.

This grinding complaint occupies the great *sciatic* nerve, which, passing over the hip, goes under the muscles of the upper and back part of the thigh, and from thence into the ham and calf of the leg. The pain is often most excruciating, so as not to allow the patient one moment of sleep during the night.

This complaint often owes its origin to exposure to cold, damp, easterly winds, late in the evening or very early in the morning. It is difficult of cure, if the patient uses any muscular exertion. We succeed the best when he is confined to his bed or the sofa. It is remarkable that strong, active, muscular men are more subject to this disease, than those of a weaker frame. But I think all have got well at Middleton, who have used the proper means, and have remained there a reasonable time; although it has been frequently remarked in this complaint, that what will cure one person will have little effect upon another.

CUTANEOUS DISEASES.

Since I first recommended this water in diseases of the skin, I have had an opportunity of witnessing its power in a very great variety of cases; and it is well known that many of the most awful kind, which have resisted every means which the most skilful physicians and surgeons could devise, have been cured by this water, with, sometimes, a little assistance from such medicines and topical applications as experience points out to be useful. We have had patients sent with the crustaceous kinds of eruptions, both from London, Edinburgh, and other places, which covered the face like a thick mask, and frequently concealed deep and corroding ulcers. The species most frequently met with, is the *porrigo favosa* of the face; these were all cured, as well as several cases of *noli me tangere*, which now may take another name, as the unconquerable demon is glad to make his escape when beset by the Dinsdale artillery, at least, in many instances, this has been the case. Every leprous patient has been cured. But the leprosy is so soon acted upon by the water and the medicaments in ordinary use, that the patient is encouraged to remain at the place till a perfect cure is effected. It is not

so with some other disorders; but in obstinate diseases we frequently have not fair play; many come to stay their *week* at Dinsdale, and if they are not much better in that time they run away. Some will take the water in any quantity, but if it be necessary to assist it by a little medicine, it is high treason—they cannot be poisoned with drugs! Besides, Dr. Somebody had ordered them not to take any medicine whilst at the bath, but such as he had furnished them with. After this, they run about the country giving it out that "Dinsdale water did them no good." Perhaps, in a few years, they will have more confidence in what they find here.

Leprosy and tetter, which may be considered as two twin sisters, if not the same disease, are the most common of the eruptive class which come for relief to this spring. A slight derangement of the health, or an error in diet, will give rise to each of them. I do not exceed the truth when I say, that I have seen many cases of leprosy, where the subjects of it have left a quart of scales upon their sheets every morning before they were put under rules; but leprosy is much more formidable in name than in nature, and is always cured here; but frequently returns with cold weather, or very prominent errors in diet.

The tetter often alternates with some internal

complaint; often with affections of the membranes of the liver, or stomach, or brain; and if it is got rid of *at all events*, that is, if repellents be used, the pain, or inflammation, or thickening of the part catenated with the eruption, returns with great suffering and danger, and generally continues till the eruption is thrown out again.

In my first edition of Observations upon the Dinsdale Water, I gave some striking instances of the bad effect of repellents in tetter, which I am obliged to leave out for want of room; for, were I to elucidate even with the most prominent cases of eruptive diseases which have come under cognizance during the last twenty years, they would fill a large volume, and I thought if I began this edition with cases at the first, I should be obliged to follow it up, which was impracticable.

The prudent practitioner will hesitate before he employs any of those heroic and infallible remedies in cutaneous diseases, which are daily recommended, not only by empirical pretenders, but by men of the highest estimation in the profession. I have no doubt in my own mind, but the chapter on cutaneous ulcers, by a distinguished surgeon in the north has occasioned the death of hundreds; he there roundly states, that

all the fears of the ancients were groundless, and all their practice erroneous, with regard to the repulsion of herpetic eruptions, and advises the washing the skin freely with solutions of lead or mercury, without any regard to the origin or state of the disease.

When the skin has suffered some time under *lepra*, *herpes*, or *psoriasis*, it loses its tone and beauty, and its functions become impaired; the transpiration is obstructed in the part affected, and should the patient sweat profusely, a greasy fluid is at first excreted, which, if wiped off, is succeeded by the usual aqueous one. Now, to restore the lost tone of the skin, to wash off the offending matter, and bring about a free transpiration, sulphur baths have been of use from time immemorial (lately the water has been taken internally for the same purpose), and as their mode of action was not known, nor even of what ingredients they were composed, physicians agreed to call them *specifics*, and they were used indiscriminately for every eruptive disease.

In the treatment of this class of cutaneous affections, strict inquiry should be made concerning the previous symptoms. We should endeavour to find out whether the disease be curative of, or is still associated with, some

morbid affection of the viscera; whether it has been preceded by hectic heats and cough; by a pain in the stomach, flatulency, and indigestion; by griping pains in the bowels, with tension of the abdomen and low spirits; or by palpitation of the heart, and intermittent pulse. If it has been found to succeed any of these trains of symptoms, we shall be able to conjecture with what diseased organ it is associated; whether the eruption was curative of consumption, dyspepsia, hypochondriasis, inflammation of the membranes of the liver or stomach; and thus, by medicine and proper diet, having restored to its healthy state the original seat of the disease, before we attack the outworks, we shall, like prudent generals, secure a safe retreat; but in no one of the consumptive cases which have come under my care, have I once known the original disease return, whilst the patient was drinking the sulphur water and using the tepid bath.

This water has a peculiar determination to the skin. It is not uncommon for patients, after using it awhile, to have very troublesome cutaneous eruptions, which last only a few days, and generally clear them of all their internal complaints, affections of the stomach particularly.

There is another disease of the skin (*sycosis menti*) which was, till lately, considered almost incurable, which has been subdued here in every instance. It consists of clusters of cream-coloured tubercles, which take possession of the chins and throats of men, and, as they break, leave a thick and sore crust which becomes matted with the beard, which, among other inconveniencies, cannot bear the razor. This is one of the evils of life which will, I trust, in future, be left out of Pandora's box, as its cure has been lately easily accomplished.

We see here, now and then, a very formidable disease, if it is not cured in a few weeks after the first attack, the *eczema rubrum*. This troublesome eruption is often changing both its seat and appearance, and when it takes possession of the lower limbs, is sometimes very obstinate, and inclined to fix there for life. We have seldom had above one case of this disease in a season; in the last year we had two, and both old established ones; one got well, the other patient *bolted*, confessing, at the same time, that he was very much improved. I had no fear but, had the gentleman remained at Dinsdale a few weeks longer, and been conformable, he would have got well.

THE IMPETIGO SCABIDA

Is frequently met with, and when it is general over the body, is a most frightful disease. A gentleman from Sunderland sent me, from another watering place, a most awful case of this kind last summer, the subject of which got well at Middleton. The same gentleman had sent to me an obstinate case of leprosy, which disappeared here also.

When the Doctors Willan and Bateman were alive, they sent me, from London, a number of patients every summer, affected with cutaneous diseases. They entertained a very high opinion of this water, not only on account of the immediate action of the sulphur upon the skin, but from its value as a corrector of the vagaries of the stomach, upon which the formation of pure and mild fluids so much depends.

THE SCALLED HEAD.

Many children are brought to this water for the purpose of getting rid of this obstinate and loathsome disease. For a long time, I got hold of every tract, and read every author who treated upon this disease; but, I am sorry to say, without any satisfaction or improvement in the management of it. We have various remedies

pressed upon our attention; but I never found one so successful as I was led to hope for; and I have come to this conclusion, that there is no one specific remedy for this disease discovered yet. Every stage of the complaint, and every change, require new and different means, and all we can do is to get hold, as soon as we can, of the various and most successful modes of combatting every variety of appearance, whether occasioned by complexion, constitution, age, or the devastation which long suffering has made in the texture or susceptibility of the integuments of the head. In short, a child under this disease has frequent occasion for a succession of remedies, instead of finding a specific in one. It is a very contagious disease, and the parents of children who are brought here with a view of the water assisting in the cure, should make a point of keeping the little sufferers on the out-skirts of the village.

The itch is not acted upon by this water, either by its external or internal use.

RHEUMATISM.

After eruptive diseases, chronic rheumatism is the most common complaint for which recourse is generally had to sulphur waters; and, under proper management, they are an efficacious

remedy. But a very important distinction should be made between one species of this disease and another, otherwise the indiscriminate use of this very powerful medicine will often be attended with disappointment. Authors have generally divided this disease into acute and chronic, without noticing that there are two species of chronic rheumatism, which require as opposite treatment as any two diseases to which the human body is liable. While the limbs of one person are so painful under heat, that he is obliged to throw off the bed clothes in the coldest nights in winter, another cannot find relief till his limbs are rolled in flannel, and he is sweating under six or eight blankets. In the name of common sense, can this be one and the same disease?—but our learned teachers have been so fond of systematising, they will, at any time, wink at nature, if she does not exactly tally with their rule and square. A renowned professor, in treating of this disease says, that one species of chronic rheumatism so resembles the acute, that we are to treat them both alike. To be sure this sweeping mode of doing business, saves a teacher much trouble in discriminating, and the student much pains in thinking, but how will this do in practice? I have often witnessed the peculiar power of this water in

diminishing the morbid action of the arterial system, which, in rheumatisms attended with pain during warmth, seems the chief measure indicated. But the system must be strengthened at the same time, otherwise we give only momentary relief.

In the second species of chronic rheumatism, the patient is always easiest whilst warm or sweating; his pulse is languid, he is very susceptible of cold, has bad spirits, his tongue is generally foul, but becomes cleaner, and his appetite and spirits return by sweating. But the very thing which gives relief, tends, at the same time, to aggravate the disease. The more he perspires, the more susceptible he is of cold, by which his complaint is renewed, and he thus goes on, *marring* and *mending*, till he cannot bear the softest breath of air to blow upon him; his bones get disjointed, and he is condemned to drag out the remainder of his miserable existence in fleecy hosiery and hot rooms.

The cure of this complaint is to be accomplished by very different means than that of the preceding. Early rising, tonic and gently stimulating medicines, such as bark and the gum rezins, cold sulphur bath, and the frequent use of the flesh brush, are generally found the most efficacious remedies. But much depends upon

good management in the use of the cold bath: there should only be one immersion, which should be as sudden as possible; and, as soon as the patient can escape from the bath, a warm sheet should be thrown over him, and his skin dried, and his cloaths put on with the greatest speed. The doors and windows should be well closed, so that no current of air comes upon him whilst dressing; and, if the weather be cool, he should let the glow upon his skin subside before he ventures out.

People of spare habits, and those who have not been much in the open air, should prepare themselves for the cold bath by using the tepid bath a few times, lowering the heat a degree or two each time, and, when the tepid bath is thus used to prepare for the cold, the patient need not remain in it more than four or five minutes.

For the information of those who have had no opportunities of acquiring any knowledge upon the subject, it may be necessary to make a few observations upon temperature.

The ordinary heat of the human body, when in health, is from 96° to 98° of Fahrenheit's thermometer, and this it preserves in so extraordinary a manner in all climates, whether a man be wading through the snows of Lapland, or broiling in the torrid plains of Africa, that Dr. Currie has

proposed that this power of the body in preserving its proper heat be considered as a definition of life. In this island the surrounding atmosphere is always many degrees colder than the human body, but habit reconciles us to it; and, when our summer heat is as high as 80°, or we sit in a room heated to that pitch, our feelings are rendered very uncomfortable. The circulation, by being thrown more than usually upon the skin, gives the sensation of great heat; but, if our bodies be immersed in water at the above heat, it gives the sensation of coldness; this is owing to the greater density of water than air, which makes it a better conductor of heat; so that air at 70° of the thermometer will feel as warm as water at 90°.

When the body is plunged into cold water our sensations experience an uncomfortable shock, which is immediately followed by an agreeable glow upon the skin—this is what physicians call the *re-action* of the system. The hot fit of fever is supposed to be produced by the same power in getting rid of the cold one.

Now, in bathing, every degree of cold, from 86° of the thermometer down to the freezing point, is capable of giving this shock and consequent re-action, in a greater or less degree, which is always in proportion to the degree of coldness,

making allowance for peculiarities in constitution, or habits of life; for the re-action, or glow, whichever we please to call it, will be scarcely sensible when the water is at 86°.

Although the temperature of the Dinsdale water is considerably higher than the generality of cold springs, yet it is sufficiently cold to give a shock adequate to any medicinal purpose for which a cold bath is used.

The *tepid bath* generally ranges from 90° to 96° of Fahrenheit, and every degree of heat above this may be denominated *hot bath.*

The tepid bath is one of the pleasantest remedies in the world, and one of the most powerful, particularly the Dinsdale tepid bath; for, in addition to every other property which a tepid bath possesses, the quantity of sulphuretted hydrogen diffused through it, renders it a most subtle and active remedy.

FINIS.

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